

REMARKS

Claims 2-7, 10-13 and 15-29 are pending in this application. By this Amendment, claims 30 and 31 are canceled without prejudice to or disclaimer of the subject matter recited therein. Claims 11 and 12 are amended to include the subject matter of canceled claims 30 and 31, respectively. No new matter is added.

I. Personal Interview

Applicants appreciate the courtesies extended to Applicants' representative during the personal interview conducted on July 27, 2004. Applicants' separate record of the substance of the interview is incorporated into the following remarks.

II. Claim Rejections Under 35 U.S.C. §103

The subject matter of the pending independent claims stand rejected under 35 U.S.C. §103(a) as unpatentable over WO 01/02845 (which is equivalent of U.S. Patent 6,495,027 to Stahl) in view of U.S. Patent 6,045,673 to Kato et al. (Kato). The rejection is respectfully traversed.

As discussed and agreed during the personal interview, the claims, as amended in the July 7, 2004 Amendment, distinguished over Stahl. However, as also discussed during the personal interview, Applicants assert that neither Kato nor Stahl, whether considered alone or in combination, disclose or suggest the second oxygen monitor cell electrode and the second sensor cell electrode have ends oriented to an upstream side of flow of the gases within the gas cavity, one of the ends being offset from the other in a direction of the flow of the gases by 2 mm or less, as recited in claim 11.

Although the Examiner contended during the personal interview that Stahl shows the sensors "in-line" with one another, there is no teaching in the reference of the reason for such an alignment. Rather, the figures merely appear to place the sensors in-line without providing any benefit or reason for such an arrangement. Additionally, as discussed during the personal

interview, the Examiner agreed to reconsider such an argument if the claims were further amended to clarify the previously recited language of the "shift" of the sensors and monitor cells to recite the ends of the sensors being "offset" as currently recited in the amended claims. Thus, Applicants submit that the recitation of one of the ends being "offset" from the other in a direction of the flow of the gases by 2 mm or less, distinguishes over the combination of references.

Similarly, claim 12 has been amended to indicate that the second monitor cell and the second sensor cell within the gas cavity is offset by 1 mm or less.

Claims 11 and 12 are also amended to recite the subject matter of canceled claims 30 and 31, respectively. Applicants assert that the applied references, whether considered alone or in combination, do not disclose or suggest the additional feature. For example, the combination of references fails to disclose or suggest a portion of the gases which enters the gas cavity and reaches the oxygen monitor cell through the first and second chambers, and a portion of the gases which enters the gas cavity and reaches the sensor cell through the first and second chambers undergo the same total diffusion resistance. In other words, a diffusion resistance to which the measurement gas is subjected until it reaches the monitor cell, is identical with that to which the measurement gas is subjected until it reaches the sensor cell.

In contrast, Kato discloses that the third measuring electrode is covered with a diffusion resistance layer. However, the second measuring electrode is not covered with such a layer. Thus, the diffusion resistance to which the gas is subjected until it reaches the second measuring electrode is different from that to which the gas is subjected until it reaches the third measuring electrode.

The April 7, 2004 Office Action also recites that WO 01/02845 (Stahl) does not explicitly disclose the oxygen monitor cell and the sensor cell in the same second chamber. To overcome the admitted deficiency, the Office Action combines Kato and alleges that it

would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teaching of Kato in order to miniaturize the sensor.

However, Fig. 1 of Stahl illustrates the monitor cell and the sensor cell arrayed in parallel through a partition. Thus, a combination of the structure of Stahl and the structure as illustrated in Fig. 8 at Kato would result in the structure of Fig. 1 of Stahl without a partition. Thus, such a combination does not contribute to a miniaturization of the sensor. Furthermore, Stahl does not disclose or suggest minimizing a change in the concentration of oxygen around the monitor cell and the sensor cell in addition to providing a gas cavity made up of two chambers (i.e., first and second chambers). Rather, Stahl discloses a monitor cell and a sensor cell in separate chambers. Thus, a difference between concentrations of gas in the separate chambers would inevitably occur due to the separation of the chambers.

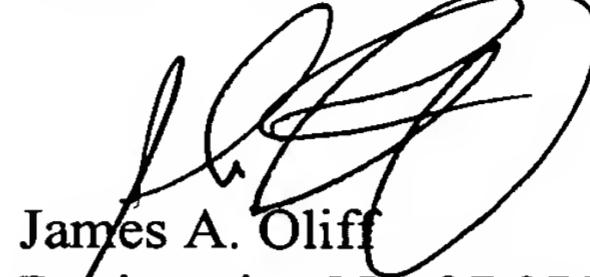
Finally, as discussed during the personal interview, the invention described in the claims relates to improving the measurement accuracy in such monitors. The arrangement of the sensors in separate chambers as in Stahl does not contribute to the improvement in such measurement accuracy. Thus, Applicants submit that there is no motivation to make the combination as alleged in the Office Action. Accordingly, Applicants respectfully request the rejection of the claims be withdrawn.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 2-7, 10-13 and 15-29 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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